capacity. Applicant respectfully disputes this statement. With regard to state of charge (SOC), page 24, lines 12-14 of the specification state that:

> SOC is estimated based on working capacity and accumulated discharge using the following relationship:
> $$SOC = (CAP + D) / CAP * 100$$

Thus, in the context of the Applicant's specification, "state of charge" is not "an estimated capacity."

Further, the Examiner states that "[k]nowing the present state of health of the battery, with reference to the original health of the battery, one of ordinary skill is <u>capable</u> of determining the present full charge battery dynamic parameters." (Emphasis Added.) Applicant respectfully points out that this statement is not consistent with establishing a *prima facie* case of obviousness.

As noted in the previous response filed on August 19, 2005, "[t]o establish a *prima facie* case of obviousness . . . there must be some <u>suggestion or motivation</u> . . . to modify the reference." (Emphasis Added.) <u>In re Vaeck</u>, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); M.P.E.P. §2143.

As acknowledged by the Examiner, Bertness does not compute remaining time. Further, none of the computations in Bertness use a full charge battery dynamic parameter. Also, Sakai computes remaining battery discharge time, without a full charge dynamic parameter, by simply dividing remaining state of charge by current. Accordingly, there is no need for a full charge dynamic parameter value in the references. Consistent with the lack of any need for such a parameter, there is no teaching, suggestion or motivation in Betrness or Sakai about a full charge dynamic parameter, or using a full charge dynamic parameter in the computation of remaining discharge time of a battery, or any such modifications.

In response to the Applicant's arguments that Sakai does

not teach "predicting a remaining run time of the battery as a function of the measured battery dynamic parameter, the discharge current, the measured battery voltage, the battery temperature, a full charge battery dynamic parameter and an estimated capacity of the battery," the Examiner states that "Bertness is relied upon for obtaining the measurements of all the values, and he further teaches of determining state of charge of the battery." Also, the Examiner states that "Sakai's system of predicting the remaining run time is based upon the 'Cn' counter, which is set with regard to the state of charge." Based on these statements, the Examiner concludes that "the combination of Bertness in view of Sakai, is in fact a function of the values that Bertness measures." (Emphasis Added.) Applicant respectfully disagrees with this conclusion.

As noted above, Sakai computes remaining battery discharge time by simply dividing remaining state of charge by current. Further, Sakai, which measures computer batteries (Li-ion, Li-polymer, NiMH), considers battery capacity as the ability to fill the system on charge, re-determines capacity only when full or empty, uses a voltage ratio to determine discharge state and bases all decisions on a typical discharge. In contrast, Bertness measures Lead acid batteries in vehicles, determines SOC from standard curves on an open circuit voltage (OCV) scale, uses OCV to determine end of discharge state from an SOC versus voltage scale and bases substantially all decisions on OCV and measured discharge.

Given the above-noted substantial differences in the applications for the Bertness and Sakai inventions, the substantial differences in parameters used for computations in Bertness and Sakai, the use of only remaining state of charge and current to calculate remaining discharge time in Sakai, etc., the Examiner's conclusion that "the combination of Bertness in view of Sakai, is in fact a function of the values that Bertness measures"

lacks support. (Emphasis Added.) Thus, pending claims 1-15 are non-obvious in view of the cited references.

B. Use of impermissible hindsight

> "Determination of obviousness cannot be based on the hindsight combination of components selectively culled from the prior art to fit the parameters of the patented invention. There must be a teaching or suggestion within the prior art, or within the general knowledge of a person of ordinary skill in the field of the invention, to look to particular sources of information, to select particular elements, and to combine them in the way they were combined by the inventor."
> *ATD Corp. v. Lydall, Inc.*, 159 F.3d 534, 48 USPQ2d 1321 (Fed. Cir. 1998).

Claim 1 includes "predicting a remaining run time of the battery as a function of the measured battery dynamic parameter, the discharge current, the measured battery voltage, the battery temperature, a full charge battery dynamic parameter and an estimated capacity of the battery."

The Examiner states that Bertness (column 8, lines 52-58) teaches "the measured battery dynamic parameter, the discharge current, the measured battery voltage, the battery temperature, a full charge battery dynamic parameter and an estimated capacity" and that Sakai teaches "predicting a remaining run time of the battery." Applicant respectfully points out that these components have been selectively culled from the prior art to fit the parameters of the claimed invention.

Bertness (column 8 lines 52-58) that states that:

In one aspect of the invention, the battery monitor performs a state of charge measurement, in real

time and regardless of battery polarization, and automatically corrects for the state of health of the battery and the battery temperature. In general, state of health can be determined as a function of the battery conductance and the open circuit voltage across battery 18.

As acknowledged by the Examiner, Bertness does not teach "predicting a remaining time of the battery." As noted above, Sakai computes remaining battery discharge time by simply dividing remaining state of charge by current. Although this remaining time computation method of Sakai differs substantially from the claimed invention, the Examiner has selectively culled the phrase "remaining time of the battery" from Sakai, and the above section of Bertness (column 8 lines 52-58), to fit the claimed invention. This constitutes an impermissible hindsight combination of components.

Further, the only teaching of a full charge battery dynamic parameter or using a full charge battery dynamic parameter in computations for predicting a remaining run time of the battery comes form the Applicant's own disclosure. This constitutes impermissible hindsight, on which a determination of obviousness cannot be based, as indicated in the case law cited above.

In view of the foregoing, and for reasons in the previous response filed on August 19, 2005, Applicant respectfully requests reconsideration and allowance of claims 1-15. Favorable action upon all claims is solicited.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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